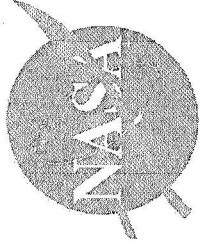


## One NASA: Sharing Knowledge through an Agency-wide Process Asset Library (PAL)

This poster session will cover the key purpose and components behind implementing the NASA PAL website. This session will present the current results, describing the process used to create the website, the current usage measure, and will demonstrate how NASA is truly becoming ONE. The target audience for the poster session includes those currently implementing the CMMI model and looking for PAL adoption techniques.

To continue to be the leader in space, science and technology, NASA is using this agency-wide PAL to share knowledge, work products and lessons learned through this website. Many organizations have failed to recognize how the efforts of process improvement fit into overall organizational effort. However, NASA as an agency has adopted the benefits of process improvement by the creation of this website to foster communication between its ten centers. The poster session will cover the following topics outlined below:

- Website purpose
- Characteristics of the website
- User accounts status
- Website content size
- Usage percentages



# National Aeronautics and Space Administration (NASA)

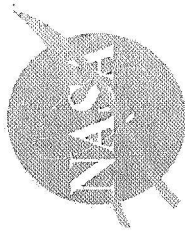
---

One NASA: Sharing Knowledge through  
an Agency-wide Process Asset Library  
(PAL)

Baraka J. Truss

NASA, Marshall Space Flight  
Center

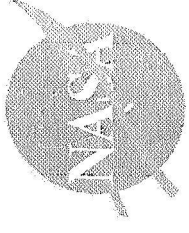
Flight Software Branch



# Topics

---

- NASA PAL Background
- Website Purpose
- Characteristics of the Website
- Website Content Size
- Usage Percentages
- PAL Snapshots

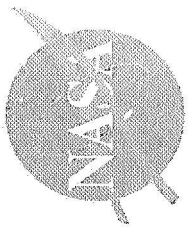


# NASA PAL Background

---

- The NASA PAL is a task of the Continuous Improvement subgroup of the NASA Software Working Group.
  - This subgroup is headed up by Jeff Phillips of Johnson Space Center.
  - Baraka J. Truss is a member of this subgroup.
  - This subgroup provided requirements for the NASA PAL.
- Marshall Space Flight Center (MSFC) developed, piloted, and administers the PAL website.

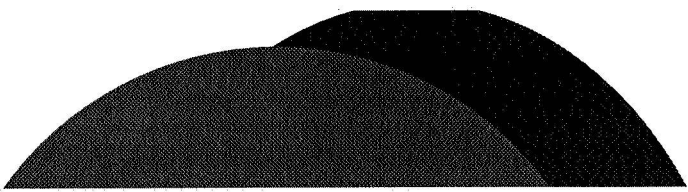




## Website Purpose

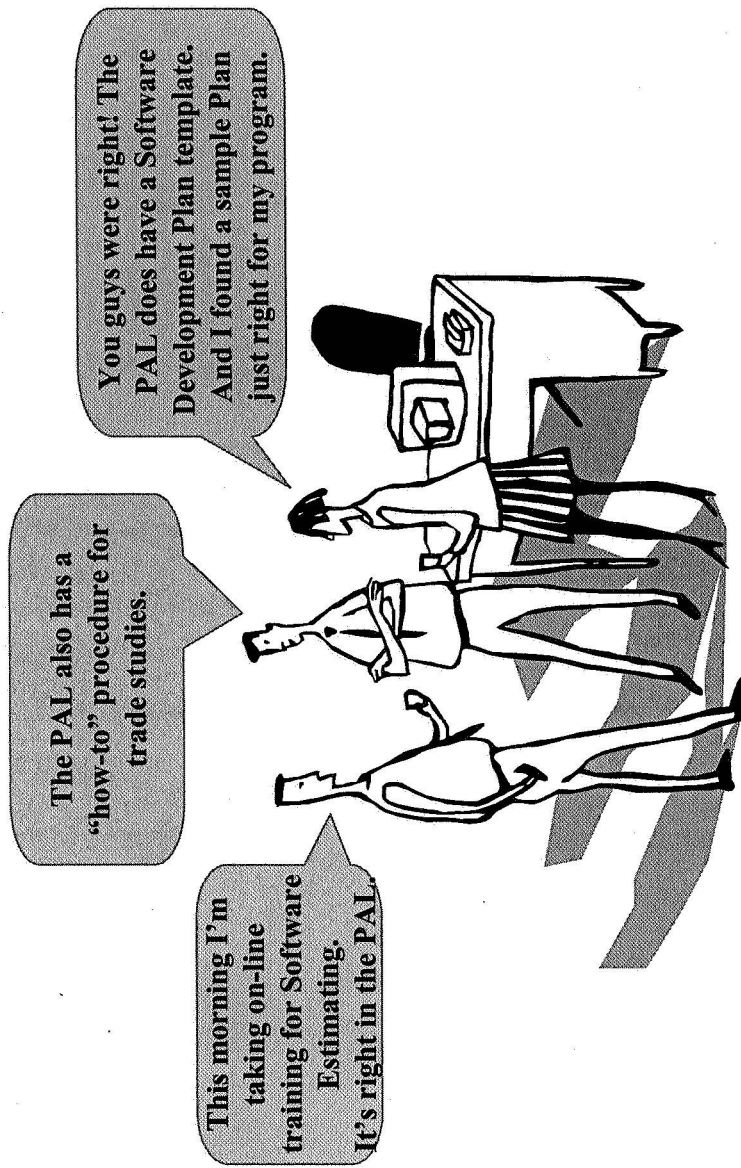
---

- The purpose of the NASA PAL website is to provide relevant software engineering information to the NASA software community.
- The NASA PAL has two goals:
  - Encourage sharing of software engineering assets within the agency.
  - Provide a repository of software engineering assets.



# Work scenario After the development of the PAL

---

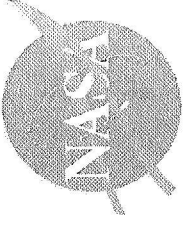




# Characteristics of the Website

---

- The PAL website is based on a free, open-source content management system.
- The Uniform Resource Locator is <http://swpal.nasa.gov> and it is accessible only from within the 10 NASA centers.
  - Hosted on a MSFC server under approved Information Technology security plan.
- Minimal customization of the "out-of-the-box" allows for easy development/maintenance.
- Anonymous users of the site, i. e., *without login*, can browse, view, search, and download all published content.



# Website Content Size

---

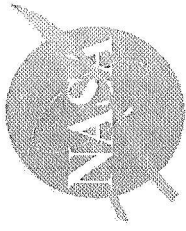
- There are approximately 250 files/documents loaded on the PAL. Additionally, there are many links to both internal and external sources.
- The PAL has multiple views including:
  - by software lifecycle phases
  - by software engineering/documentation categories
  - by agency-wide products/policies
  - by individual NASA center
  - by Capability Maturity Model Integration (CMMI) process areas



# Content Categories

---

- **Life-Cycle**
  - contains sub-folders for content related to software lifecycle areas, as suggested by the NASA PAL Website Requirements
- **Category**
  - contains sub-folders for content related to types of software documentation
- **Agency**
  - contains sub-folders for content related to agency-level software standards, policy, requirements
- **Center**
  - contains sub-folders for content that are provided by each of the 10 NASA centers
- **CMMI**
  - contains sub-folders for documentation for implementation in the CMMI staged Level 2 and 3 Process Areas



# Usage Percentages

---

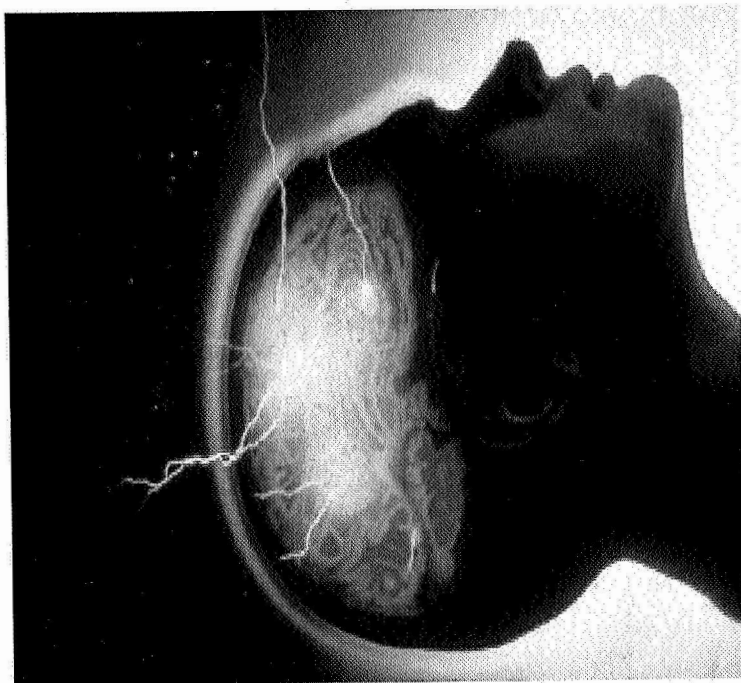
There have been over 6100 visits to the PAL website since the first part of February, 2005. Percentages of visits to the major tabs or folders are:

- Home only – 16%
- Lifecycle – 14%
- Category – 10%
- Agency – 7%
- Center – 39%
- CMMI – 13%
- Feedback – 1%

- These percentages are flawed, to some degree, in that the counters increment for all visits, e. g. the administrator. However, they give some indication of use.



# One NASA: Sharing Knowledge through an Agency-wide Process Asset Library (PAL)



**Snapshots**

**Snapshots**



Welcome to the NASA Software Process Asset Library (PAL) — PAL - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back

Forward

Stop

Home

Search

Favorites


Links

Go

Normal Text

Large Text

Address http://swpal.nasa.gov/



NATIONAL AERONAUTICS  
AND SPACE ADMINISTRATION

Software  
Process Asset Library (PAL)

Home Life-Cycle Category Agency Center CMIMI Feedback

You are here: Home

Navigation

Home

Life-Cycle

Category

Agency

Center

CMIMI

Log in

Name

Password

Log in

Forgot your password?

Welcome to the NASA Software Process Asset Library (PAL)

The NASA PAL has two goals:

1. Encourage sharing of software engineering assets within the agency.

2. Provide a repository of software engineering needs.

NO ADMINISTRATIVE CONTROLLED INFORMATION (ACI) SHALL BE LOADED ON THIS SITE.

Created by Radmin

Last modified 2005-05-05 01:36 PM

start

Welcome to the NAS...

Internet

3:33 PM

Life-Cycle — PAL - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back

Forward

Stop

Home

Search

Favorites

Links

Go

Small Text

Normal Text

Large Text

Addresshttp://swpal.nasa.gov/lifecycle

NASA

NATIONAL AERONAUTICS  
AND SPACE ADMINISTRATION

Software  
Process Asset Library (PAL)

CMMLCenterFeedback

Small Text Normal Text Large Text

Search

You are not logged in Log in

Life-Cycle

Up one level

System/Subsystem Definition

Software Management

Software Acquisition

Software Requirements

Software Design

Software Implementation/Coding

Software Test

Software Delivery

Software Operations/Maintenance

Navigation

Home

Life-Cycle

System/Subsystem Definition

Software Management

Software Acquisition

Software Requirements

Software Design

Software Implementation/Coding

Software Test

Software Delivery

Software Operations/Maintenance

Software Configuration Management

Software IV&V

Software Tools

Done

start

Life-Cycle — PAL - Mi...

SEPG2006 NASA Age...

Internet

3:34 PM

## Category

▲ Up one level

- Home
- Life-Cycle
- Category
  - Requirements
  - Checklists
  - Compliance Matrices
  - Software Surveys
  - Handbooks and Guides
  - Development and Coding and Guidelines
  - Studies and Reports
  - Software Project Management
  - Software Cost Estimation
  - Project-Defined Processes
  - NASA Center Specific

- Requirements
- Checklists
- Compliance Matrices
- Software Surveys
- Handbooks and Guides
- Development and Coding Guidelines
- Studies and Reports
- Software Project Management
- Software Cost Estimation

Agency — PAL — Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back

Forward

Stop

Home

Search

Favorites

Links

Go

Small Text

Normal Text

Large Text

Search

Address http://swpal.nasa.gov/agency

NASA

NATIONAL AERONAUTICS  
AND SPACE ADMINISTRATION

Software  
Process Asset Library (PAL)

Home

Life-Cycle

Category

Agency

Center

CMMI

Feedback

You are here: Home » Agency

Navigation

Home

Life-Cycle

Category

Agency

Standards

Policies

Tools

Guidebooks

Center

CMMI

Log in

Name

password

Log in

Forgot your password?

Agency

▲ Up one level

Standards

The Standards folder contains agency-level software standards.

Policies

Tools

Guidebooks

Done

Start

SEP2006\_NASA Age...

Agency — PAL — Micr...

Internet

3:36 PM



Center — PAL — Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back

Forward

Stop

Home

Search

Star

Favorite

Print

Mail

Run

Find

Links

Go

Normal Text

Large Text

Addresshttp://swpal.nasa.gov/center

NASA

NATIONAL AERONAUTICS  
AND SPACE ADMINISTRATION

Software

Process Asset Library (PAL)

Home

Life-Cycle

Category

Agency

Center

CMMI

Feedback

You are here: Home » Center

Navigation

Home

Life-Cycle

Category

Agency

Center

ARC

DFRC

GRC

GSFC

IV&V

JPL

JSC

KSC

MSFC

SSC

CMMI

Log in

Name

Center

▲ Up one level

ARC

This folder contains Ames Research Center (ARC) software engineering documentation.  
For further information, please contact:

DFRC

This folder contains Dryden Flight Research Center (DFRC) software engineering documentation. For further information, please contact:

GRC

This folder contains Glenn Research Center (GRC) software engineering documentation.  
For further information, please contact: Charlie Farrell, 216.433.9306  
(charles.a.farrell@nasa.gov)

GSFC

This folder contains Goddard Space Flight Center (GSFC) software engineering documentation. For further information, please contact

IV&V

This folder contains NASA IV&V Facility software engineering documentation. For further information, please contact:

JPL

This folder contains Jet Propulsion Laboratory (JPL) software engineering documentation. For further information, please contact: Joel Wilf at

Small Text

Normal Text

Large Text

Search

You are not logged in

Log in

Done

start

Center — PAL — Micro...

SEP2006\_NASA Age...

Internet

3:36 PM



Feedback — PAL - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites

Address http://swpal.nasa.gov/feedback

Small Text Normal Text Large Text

Go Links

Search

Software  
Process Asset Library (PAL)

Home Life-Cycle Category Agency Center CMML Feedback

You are here: Home » Feedback

Navigation

- Home
- Life-Cycle
- Category
- Agency
- Center
- CMML
- Feedback

Log in

Name

Password

Log in

Forgot your password?

Feedback

Please provide comments on the PAL. Just click the "Add Comment" button to start a new discussion (thread) or click the "Reply to this" button to add a comment in an ongoing thread. The Administrator of the website will periodically remove old and inactive threads.

You must have an account/password and be logged in to provide comments.

Log in to add comments

Feedback

This method of providing feedback on this PAL website requires login. Is this too restrictive? Currently, only those users designated for loading content have (or will have) accounts. All others, on-site at the NASA centers, may view content.

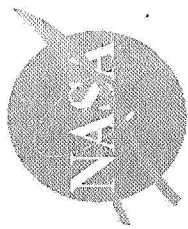
Replies to this comment

Problem (Posted by gsettle at 2005-04-13 09:26 AM)

Cost Estimator

I downloaded the cost estimator and the application seems to work great!! Bob Stevens

Internet 3:37 PM



## Contact Information

---

Baraka J. Truss  
NASA, Marshall Space Flight Center  
Flight Software Branch  
Huntsville, Alabama 35812

Phone: 256-544-4477  
Email: [baraka.j.truss@nasa.gov](mailto:baraka.j.truss@nasa.gov)